

Guide to Social Marketing: Changing Behavior towards Sound Societal Environmental Practices

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25 January 2015

Abstract

Changing human behavior towards sound societal environmental practices is feasible through social marketing. The several ordered steps for social marketing programs are: 1. identify key target audiences and their behaviors; 2. identify the desired behaviors; 3. research motivators to behavior and factors contributing to willingness to change; 4. make a plan; 5. design behavior-change campaigns with interim results and measurable indicators and timeline benchmarks; 6. implement the campaigns through technical assistance (knowledge and skills training, mentoring, and coaching in knowledge transfer and skills development; incentives; demonstrations and pilots; and technical equipment), grants, awards, etc.; 7. monitor, evaluate, and correct as needed; 8. document progress, modifications, expansions/ contractions, and corrections; and 9. summarize and vet with peers and others. Illustrative motivational and other tables and annexes, evaluation steps, practical tips, tools, and formats are presented to be useful to social marketing practitioners.

Introduction

For centuries, humans living in communities have struggled with establishing and maintaining civil societies, where personal and property rights are protected and where people are free to pursue their own activities without impinging on others. We draw upon religion, ethics, government, regulations, laws, incentives, punishments, and other sources to insure this. More and more, we are coming to using our natural and manufactured resources in ways out of harmony with nature and sustainable practices. As our populations grow, the demand for water, energy and solid-waste management become more intense, especially in arid lands with scarce resources and where declining rainfall and streamflow and intense political conflicts make it more challenging. Pricing, rationing, and fines are traditional municipal utilities' responses to control water and energy demands and assure some solid-waste management beyond otherwise chaos.

Now we are learning that human behavior may be modified sustainably and painlessly without the older command-and-control draconian measures which require policeman on every corner, or make-the-polluter pay agenda which requires a litigate and taxing bureaucracy, to enforce public policies in environmental management. By identifying key target audiences, and performing a situational analysis to identify their motivators, we can design campaigns to change behavior through communication, dynamic and interactive training, mentoring, coaching, demonstration, piloting, and, above all, providing interventions which appeal to the motivators. Moreover, if there are conveniences associated with the interventions, through easy and practical choices and technical equipment, behavior changes can be rapid, sustainable, and beneficial both directly to target audiences and indirectly to ancillary audiences.

Children, youth, and students are of course the future decision makers. Householders, usually women, play a key role in society decision-making as they nurture the family, and manage households; moreover, more women are growingly managing businesses as well. Bill payers have their own motivations related to "the bottom line." Large water and energy users, and water and energy suppliers, vendors and agencies are keenly interested in improving reliability, customer service and relations, and assuring payment and reducing non-revenue service and water and energy theft. Generally, persons may have several motivators, overlapping and unique motivations (Table 1).

Table 1. Illustrative motivational table

Target Audience	Motivations	Comments
Children	Play, fun, dynamic interactions; empowerment	Make messages interactive and fun

Target Audience	Motivations	Comments
Youth	Peer recognition; empowerment	Assure recognition
Students	Peer and adult recognition; prestige; ethical values; training certification; competition; potential employment; empowerment	Assure recognition; provide practical skills to instill pride and job opportunities
Householders	Orderliness; sanitation; empowerment	Appeal to sense of order
Bill payers	Cost control	Reduce utility bills
Large water and energy users	Cost control, reliability, sustainability	Reduce utility bills; provide better customer service; improve customer relations
Water and energy suppliers, vendors, and agencies	Cost and nuisance control, reliability, sustainability	Improve payments; provide better customer service; improve customer relations; reduce non-revenue services and water and energy theft
General persons	Personal, familial, local, regional, tribal, national, and religious pride	Associated with ethical and religious perspective on the role of individuals and societies on earth

Benefits

Different people perceive benefits differently. Some seek immediate gratification; others are as happy with delayed ones. Others are more interested in innovative and interesting actions. It is essential to identify what various target audiences perceive as benefits to implement behavior change campaigns. In general, there is power of storytelling as a marketing tool if the story promotes the willingness to change.

Steps

Here are several ordered steps for social marketing programs:

1. Identify key target audiences and their behaviors
2. Identify the desired behaviors
3. Research motivators to behavior and factors contributing to willingness to change
4. Make a plan
5. Design behavior-change campaigns with interim results and measurable indicators and timeline benchmarks
6. Implement the campaigns through technical assistance (knowledge and skills training, mentoring, and coaching in knowledge transfer and skills development; incentives; demonstrations and pilots; and technical equipment), grants, awards, etc.
7. Monitor, evaluate, and correct as needed
8. Document progress, modifications, expansions/ contractions, and corrections
9. Summarize and vet with peers and others

Mid-term and post-activity evaluation

Here are several ordered evaluation steps:

1. Make a plan, often called an Inception Report or Work Plan
2. Compile and evaluate background information
3. Conduct document compilation and review
4. Decide on sampling, survey and/or audit focus and size, and interview and observational tools
5. Perform key informant interviews and focus group interviews for implementers, grantees, and technical assistance awardees; direct and indirect beneficiaries; and stakeholders
6. Make direct observations
7. Conduct a formal monitoring and evaluation (M&E) analysis using informal tables, and, if there is extensive data, Microsoft Excel spreadsheets with their cross-linkages, IBM Statistical Package for Social Sciences (SPSS) with its scale and categorical variables, StataCorp STATA, or other statistical and graphic analysis tools
8. Summarize and vet with peers and others

9. Draft, draft final, and final Evaluation Report

Tips to assist

Here are some tips to assist the process:

1. Where feasible, interview and observe larger and diverse sample populations rather than smaller ones
2. If constrained by time and human capacity, select sample populations which represent the entire population and its sub-sector populations
3. Monitor against objectives, indicators, and timeline benchmarks
4. Evaluate against monitored factors, efficiency, effectiveness and sustainability
5. Make findings, conclusions and recommendations (FCR) through document reviews, interviews, and observations
6. Use photo-essays (Annex 1), interviewee and other quotes, and good-better-best tables (Annex 2) and short equipment guides (Annex 3)
7. Summarize and vet through peers and others
8. Where feasible, quantify findings to give them more weight, but provide qualitative insights if you feel they are helpful

Tools

Tools include: general notes and summaries of background information; annotated bibliography; document reviews; interview questionnaires, observational checklists, and photographs. Tools may benefit from piloting and vetting if they don't significantly delay the project schedule and its deliverable work products.

Formats

Although we are trained to read sentences and paragraphs, make engaging tables and matrixes such as below (Table 2) to provide a structure for program understanding, implementation, and tracking.

Table 2. Illustrative environmental action behavioral change campaigns

Illustrative Stated Purposes of Environmental Action Behavioral Change Campaigns									
Water				Energy	Solid Waste		Sanitation	Pollution	Illustrative Cross-Cutting
1	2	3	4	5	6	7	8	9	10
Increase household water efficiency in new and existing homes	Increase/maintain water conserving behaviors among households	Increase/maintain water efficiency among large customers including iconic buildings	Increase/maintain water conserving behaviors among large consumers including iconic buildings	Increase energy efficiency in new and existing homes	Reduce amount of household waste that ends up in landfills and dumpsites	Reduce littering in public places	Improve health through cleanliness	Reduce air, water, and soil degradation	Increase water conservation behaviors among youth
		<i>Synergetic purpose:</i> Increase energy efficiency (as related to water use) among large consumers	<i>Synergetic purpose:</i> Increase and maintain energy conserving behaviors (as related to water use) among large						Increase energy conservation behaviors among youth

Illustrative Stated Purposes of Environmental Action Behavioral Change Campaigns									
Water				Energy	Solid Waste		Sanitation	Pollution	Illustrative Cross-Cutting
1	2	3	4	5	6	7	8	9	10
			consumers						
									Reduce littering among youth

Findings/ conclusions/ recommendations tables for each campaign, grant and technical assistance

Frequency table – columns showing findings/conclusions parameters; rows showing campaigns as grants and TA (Table 3) – so you can assign percentages or frequencies of occurrence. If you make these properly, you can easily make statements like: Based on 55 interviews with Campaign #1 grantee representatives and evaluation of their documentation and observations, 85 percent were successful (met their objectives), 75 percent were effective, 65 percent were sustainable, and 95 percent had lessons learned to improve future funded activities in this sector. On the other hand, 15 percent misunderstood social marketing principles (thinking it is social media or customer service), 27 percent failed to benefit from technical assistance training, 62 percent had trouble with financial management, and 25 percent had problems with monitoring and evaluation. Table 4 is an example of a report box for a FCR.

Table 3. Illustrative success matrix for environmental action grants and technical assistance (TA)

Illustrative Success Matrix for Environmental Action Grants and Technical Assistance (TA)						
Campaign/Grant # or TA	Grantee or TA Recipient	Grant or TA Objective	Findings per meeting Objectives	Conclusions	Recommendations	Comments: may have succeeded without meeting objectives
SELECTED GRANTS						
X/ Y	XXX/ Child-youth water & energy	Dynamic water & energy conservation exhibit & mobile museum for children	Attractive, dynamic, interactive exhibit in place	Successful/ Met objective; children and youth, positively impacted; effective and sustainable	Fund such activities to sustain operations, maintenance, repairs, and upgrade; streamline future decision-making and dealing with designers	Many indirect beneficiaries at no additional cost: peers, siblings parents, caregivers, museum staff and volunteers, general public, museum visitors, donors, communities
X/ Y	YYY/ Water	Increasing youth public discourse on water to reduce water demand in schools	Youth positively impacted	Successful/ Met objective; children and youth, positively impacted; effective and sustainable	Fund such activities to emphasize water savings and bill reductions	Many indirect beneficiaries at no additional cost
SELECTED TECHNICAL ASSISTANCE						
TA	Municipality/ Environmental Directorate	Solid waste management support	Most shopkeepers participated; shop cartons were collected and recycled; street litter was reduced	Successful/ Met objectives; effective and sustainable	Continue to fund such activities and expand to other shops and other source-sorted wastes; be sure to provide human capacity to collect and recycle materials; proper carton-pick up scheduling is important	Left a positive impression of donor
TA	Energy Utility	Improve customer care in electricity	Computer hardware and software was provided but the system does not work and is ineffective;	Unsuccessful/ Did not meet objective; not effective or sustainable; recipient	Do not fund TA unless there is followup, and appropriate training, mentoring and coaching	Left a negative impression of donor

Illustrative Success Matrix for Environmental Action Grants and Technical Assistance (TA)						
Campaign/ Grant # or TA	Grantee or TA Recipient	Grant or TA Objective	Findings per meeting Objectives	Conclusions	Recommendations	Comments: may have succeeded without meeting objectives
			customer calls continue to be ignored, misplaced and non-recorded; recipient thinks <i>social marketing</i> means <i>customer service</i>	misunderstands social marketing		

Table 4. Illustrative findings, conclusions and recommendations (FCR) for technical assistance

Illustrative FDR Technical Assistance to Electric Company	
Findings	Failed to meet Company expectations in the Customer Service query system, Cost Center employee training, and building customer relations methods.
Conclusions	The technical assistance did not meet Company expectations; its efforts were ineffective.
Recommendations	Improve understanding of social marketing, communications skills, training and all-party roles and responsibilities.

Conclusions

Changing human behavior towards sound societal environmental practices is feasible through social marketing. The several ordered steps for social marketing programs, illustrative motivational and other tables and annexes, evaluation steps, practical tips, tools, and formats are useful to social marketing practitioners.

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Annex 1. Unlabeled Photo Essay of Two Weeks of Water, Energy and Solid-Waste Management Observations

There are lots of overlaps between water, energy and solid-waste practices. Water wasted requires more energy to find, treat, deliver, and store; plus it can be polluted from poor waste practices. Water has lots of missed opportunities, like building-drains that throw water to the streets to evaporate rather than capture it for irrigation, cooling, dust control, etc. Energy has opportunities too, like solar clothes driers, and more subtly whitening streets, rooftops and parking lots and preserving trees to reduce the urban heat island warming effect which otherwise requires more energy for cooling buildings, and getting methane from food and landscape litter for energy (just like natural gas). Solid waste has opportunities too, like capturing organic or food wastes to generate methane as an energy source, and capturing and selling valuable metals from wastes.

Water-wise



Water UN-Wise



Energy-Wise

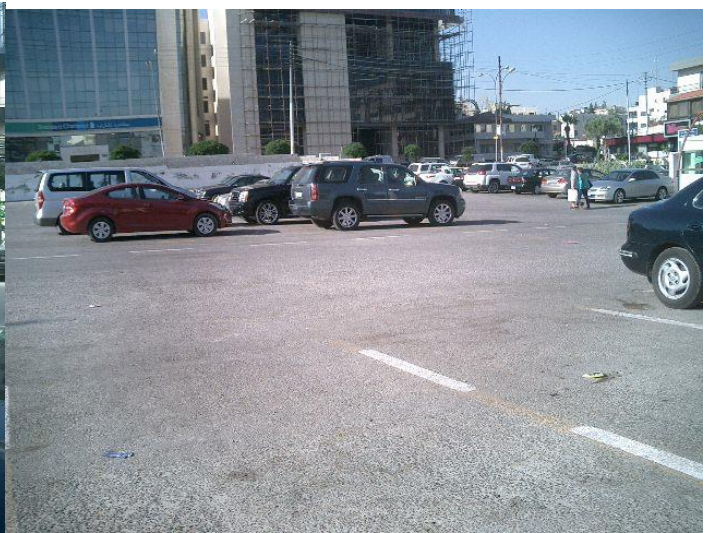






Energy-UNwise



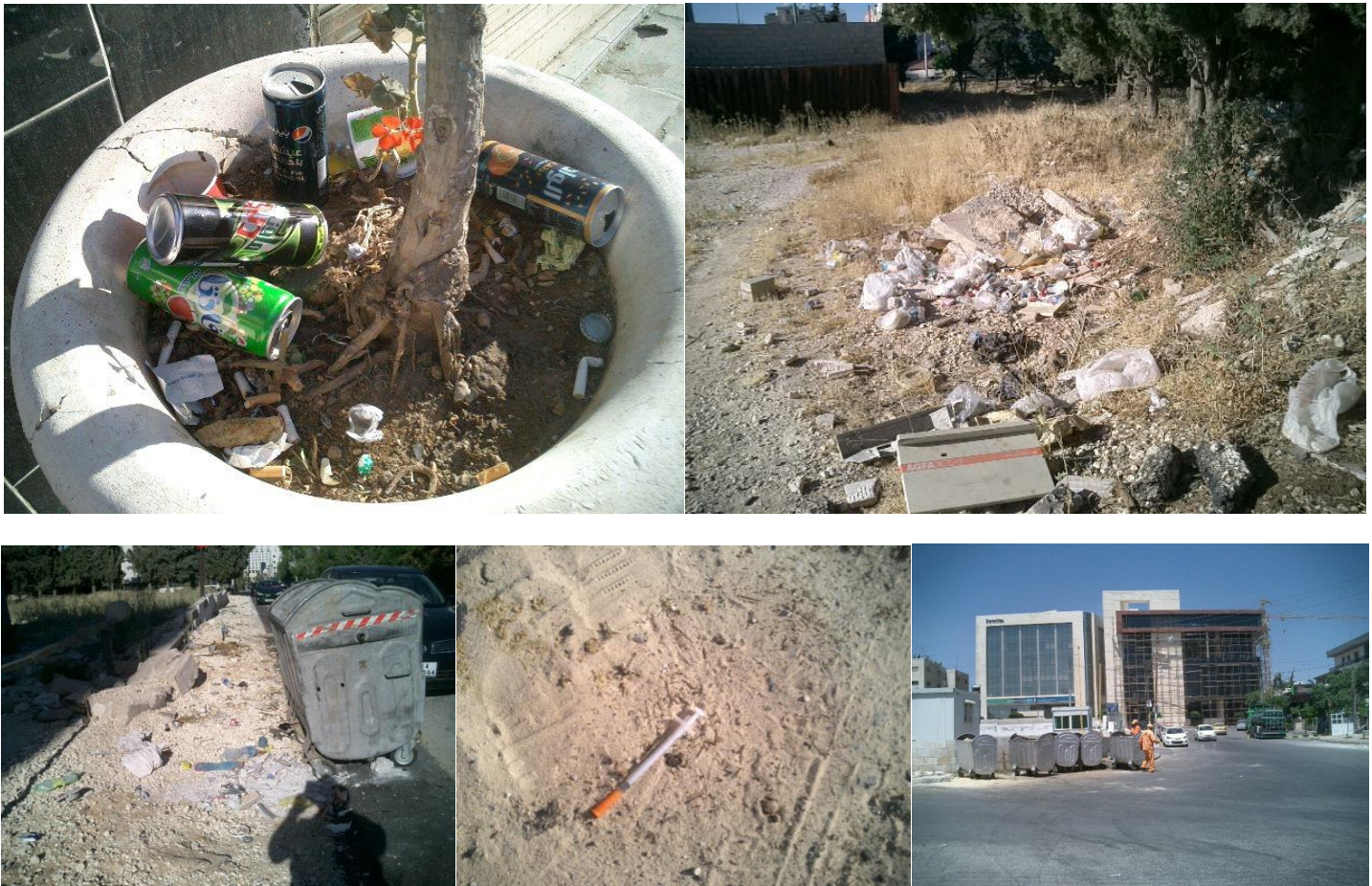


Waste-Wise



Waste-Unwise





Annex 2. Good, Better, Best: Water, Energy and Solid-Waste Management Technologies

Assigning judgments or rankings to various water-, energy- and solid-waste management devices, equipment, machinery, tools and so on is subject to debate and disagreement by administrators, financial managers, engineers, technicians, lay persons, donors, stakeholders, beneficiaries, and others. In addition, there are trade-offs, as various technologies require various levels of operational and maintenance capacities, spare parts, and demands on other resources. Nonetheless, it is useful to see what can be done with these technologies by their sectors.

Water

Water Meters		
Good	Better	Best
Analogue	Digital	Digital Remote
Low cost	Moderate cost	High cost
Difficult to read; easy to misread; needs on-site meter reader	Easy to read and record; needs on-site meter reader	Most accurate; automatic read and record; no on-site meter reader needed; requires sophisticated network

Faucet Aerators - Pipe Flow Reducers - Automatic Turn-off		
Good	Better	Best
Faucet Aerators/ Bubblers	Pipe Flow Reducers/ Restrictors	Automatic turn-off or timed faucets
Low cost	Moderate Cost	High cost
Easy to install and replace by lay persons	Requires plumber to install	Most water-saving; requires plumber to install

Condensate Collection - Rooftop Water Collection - Gray Water Collection		
Good	Better	Best
Air Conditioner Condensate	Rooftop Water	Gray Water
Low cost	Moderate cost	High Cost
Sustainable supply; easy to install; high-quality water for potable use	Only available when it rains; may require plumber to install; water may be cloudy, turbid; suitable for landscaping and car washing; easily treated by sand or carbon filtration for potable use	Sustainable supply; may require plumber to install and space demands; water may be cloudy, turbid, soapy, bacterial; suitable for landscaping and car washing; easily treated by sand or carbon filtration for potable use

Toilet Dye Test/ Bag-Tank Reducer - Duel-Flush Toilet - Smaller-Tank Toilet		
Good	Better	Best
Toilet Dye Test/ Bag-Tank Reducer	Duel-Flush Toilet	Smaller-Tank Toilet
Low cost	Moderate cost	Moderate Cost
Easy to test for tank leaks; easy to insert bag in tank to reduce flush volume; consumer-friendly	Needs plumber to install; some consumers may not know how to use it; good water savings if/ only used properly	Needs plumber to install; consumer-friendly; routinely saves water without any thought

Flood - Sprinkler - Drip Landscape Irrigation		
Good	Better	Best
Flood	Sprinkler	Drip
Low cost	Moderate Cost	High cost
Easy to use; wastes water if it irrigates open areas without plant roots	May require plumber to install; easy to use; wastes water to evaporation and if it irrigates open areas without plant roots	May require plumber to install; easy to use; may need water treatment to remove sediment/ turbidity; may need repairs from animal or frost damage; saves the most water when used properly to water plant roots, especially trees and shrubs

Energy

Electrical Meters		
Good	Better	Best
Analogue	Digital	Digital Remote
Low cost	Moderate cost	High cost
Difficult to read; easy to misread; needs on-site meter reader	Easy to read and record; needs on-site meter reader	Most accurate; automatic read and record; no on-site meter reader needed; requires sophisticated network

Compact Fluorescent Bulbs (CFB) - Liquid Crystal Display (LCD) - Lighting Dimmers		
Good	Good	Good
Compact Fluorescent Bulbs	Liquid Crystal Display	Lighting Dimmers
Moderate cost	Moderate cost	Low cost
Great energy saver; easy to install; may not fit in all light fixture; may not be aesthetically pleasing	Best for signs and small-area highlight lighting; may not fit all light fixtures	May require electrician to install; great energy saver and mood setter

Solar Water Heaters (SWH) - Solar Clothes Dryers (SCD) - Solar Panels (Photovoltaic Cells) for Energy Generation		
Good	Good	Good
Solar Water Heaters (SWH)	Solar Clothes Dryers (SCD)	Solar Panels (Photovoltaic Cells) for Energy Generation
Moderate cost	Low cost	High cost
Great energy saver; may require plumber to install; may not fit in all spaces; very dependable when sized properly; hard (calcium-rich) water may clog piping	Great energy saver; easy to use	Great energy saver; requires installation specialist; may not function if panels become dusty; needs inverter from direct to alternating current for most appliance; if acid storage batteries are required, these may leak or expose people and the environment to hazardous liquids and gases

Heat-Exhaust Pumps - Heat-Exhaust Rooftop Turbines - Passive Heat-Exhaust Ventilation - Wall Heat-Exhaust Vents - Room/ Space Heaters/ HVAC Units - Heater/ HVAC Controls					
Heat-Exhaust Pumps	Heat-Exhaust Rooftop Turbines	Passive Heat-Exhaust Ventilation	Wall Heat-Exhaust Vents	Room/ Space Heaters/ HVAC Units	Heater/ HVAC Controls
Good	Good	Good	Good	Good	Good
Moderate cost	Low cost	Low cost	Very low cost	Moderate cost	Very low cost
Requires electrician to install; runs off electricity	Requires carpenter to install; runs off natural wind	Requires carpenter to install; runs off natural hot-air rising	Requires carpenter to install; runs off natural wind	Consumer can install space heater; space HVAC requires electrician to install; both run off electricity	If manual, depends on user; if automatic, can be set to assure least-energy demand mode

Indoor and Outdoor Shadings				
Good	Good	Good	Good	Good
Outdoor Awnings, Ramadas, Coverings	Window Double Panes	Louvered Windows	Window Coverings, Curtains, Blinds, Films	Rooftop Skylights/ Skylight Windows
Low to moderate cost	Moderate to Expensive cost	Moderate cost	Low to moderate cost	High cost
Requires carpenter to install; cooling areas near buildings reduces building temperature and AC costs, and urban heat island	Requires carpenter to install; heating and cooling energy demand	Requires carpenter to install; cools naturally and reduces energy demand	Easy to install; reduces heating and cooling energy demand	Requires carpenter to install; reduces electrical energy for lighting

Solid Waste

Solid Waste Bins and Processing Systems

Good	Better	Best	Best
Waste Bins	Source-Separation Bins	Composting Bins and Systems	Waste-to-Energy Systems
Low cost	Moderate cost	Moderate cost	Moderate to high Cost
Easy to install; reduces street dumping and litter	Easy to install; prepares waste for resource recovery if there are linkages to commodity brokers	Easy to install and operate; makes fertilizers and soil amendments from organic and landscape wastes for commercial and other uses	Moderately easy to install and operate; makes methane or bio-gas from organic and landscape wastes, and wastewater treatment plant bio-solids (sludges) for commercial or other energy use

Annex 3. Short Guide to Household and Institutional Wise, Water, Energy and Solid-Waste Equipment

Linkages

- Pumped water needs energy and may be contaminated from solid waste
- Manufactured energy needs water and generates solid waste
- Solid waste may contaminate water, pose health and ecological threats, but is energy and cash-resources rich
- Bill-payers, housewives, and youth play leading roles in water, energy and solid-waste management

Basic principles

The classic 3R's: reduce, reuse, recycle... (including compost... waste-to-energy)

Reduce - Buy less, use less, dispose/ waste less

Reuse - Use something again in the same way as intended, which otherwise is waste

Recycle - Use an item made from materials modified or reformulated from otherwise waste

Compost - Make fertilizer or soil amendment from organic wastes (food, sewage biosolids (sludge), agricultural processing residues, crop residues, forest litter, and landscape trimmings)

Waste-to-energy - Make methane from organic wastes

Some wise strategies/ equipment

Water - Strategies: Rationing; command and control regulations/ enforcement; Slow the flow; Beat the peak; Yellow Mellow/ Brown Flush-Down Messaging; Find and fix the leaks; Reminder signs; Outreach campaigns; water use audits; contests/ awards; USGBC LEED; ISO 14000; modernize plumbing and construction codes, regulations, ordinances; pricing with incentives

- Equipment: Metering; water-flow faucet/ tap restrictors and aerators; sensor-activated faucets/ taps; leak test detection dyes/ fixers; recovery/ reuse systems for gray water/ rooftop water/ street runoff water; smaller toilet tanks or tank fillers; dual flush toilets; waterless toilets; automatic timers/ water shut-off switches; automated landscape irrigation controls; xerophyte and rock landscaping

Energy - Strategies: Rationing, command and control regulations/ enforcement; energy-use audits; contests/ awards; USGBC LEED; ISO 14000; modernize energy and construction codes, regulations, ordinances; pricing with incentives

- Equipment: Metering; energy-efficient appliances/ electronics/ lights, photovoltaic cells/ solar panels for water heating/ pumping/ energy generation; use natural processes for hot air flow venting with wind towers/ false roofs; air-dry clothing; window films and protective curtains; sunroofs and natural sunlight; louvered windows to increase indoor air flow by passive cooling; roof overhangs to let in lighting but not solar heat; awnings, tents, covers, ramadas, overhangs, recessed windows and door, lamp and heating controls and intelligent monitoring controls; white roofs, streets and parking areas to reduce urban heat island (UHI) effect

Solid Waste - Strategies: 3R's campaigns; Smart Shopper Campaigns (Buy Less/ Smaller – Discard Less); anti-littering campaigns; Urban Ore; Soft demotion; thrift and secondhand shops; command and control regulations/ enforcement; solid-waste audits; contests/ awards; grants to entrepreneurs; CBOs, NBOs for business startups; USGBC LEED; ISO 14000; waste-to-resource clearinghouses; modernize energy and construction codes, regulations, ordinances; support commodities brokers; pricing and price-reduction incentives for 3R's

- Equipment: Metering; building or community waste bins; waste-source separation trash containers/ bins; dirty and clean materials recovery facilities (MRF); metals (especially iron, copper, aluminum, lead), collet (glass), wood and wood chips, porcelain refinishing, plastic, paper/ cardboard recycling equipment; composting facilities; waste-to-energy plants